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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,781	09/29/2000	Hyun Ki Choi	P-133	2258

34610 7590 04/23/2004

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EXAMINER
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CHOW, CHARLES CHIANG

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/672,781

**Applicant(s)**

CHOI ET AL.

**Examiner**

Charles Chow

**Art Unit**

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-16, 18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-16, 18 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**Office Action for Amendment  
Received on 3/11/2004**

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 14, 16, 18, 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lauper et al. (US 6,456,039 B1).

Regarding **claim 14**, Lauper et al. (Lauper) teaches a battery 2 (Fig. 1) of a mobile phone (3, abstract, col. 2, lines 40-45) comprising a battery cell (2), an antenna (20, Fig. 1) electrically connected with a mobile phone main body (Fig. 1, battery is connected to main body for making contact to 31 via 22), and implemented at a predetermined position adjacent to the battery cell (the antenna 20 is positioned at a predetermined position in battery as shown in Fig.1), a battery package holding the battery cell (battery cell in col. 4, lines 12-15), and the antenna is formed by a plurality of wires (antenna consists of a coil, col. 2, lines 48-50, and curled wires as shown in Fig. 1), that lie in a plane that extends parallel to an upper surface of the battery cell (the antenna 20 is in parallel to the surface of the battery cell 2 when the mobile phone 3 is laid down horizontally as shown in Fig. 1, such that the antenna 20 is in parallel with the surface of the battery 2).

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Regarding **claim 16**, Lauper teaches when the mobile radio telephone 3 is laid down as shown in Fig. 1, the antenna 20 is positioned at an upper portion of the battery cell 2.

Regarding **claim 18**, Lauper teaches the side surface of battery cell 2 is an outer surface of battery cell 2, as shown in Fig. 1.

Regarding **claim 20**, Lauper teaches the antenna is of a linear or zigzag shape (the antenna 20, Fig. 1, is linear and coiled in zigzag shape).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lauper in view of Johnson et al. (US 6,181,283 B1).

Regarding **claim 15**, Lauper does not clearly teach the dielectric substance between antenna and battery cell. However, Johnson teaches a dielectric substance or a space exists between the antenna and the battery cell (as shown in col. 4, line 51-64, Fig. 3, the dielectric layer 112, the radiation absorbing layer 116, in between serpentine antenna element 110 and the detachable assembly 16). Johnson teaches an improved technique for a removable battery with antenna, such that the antenna can be structured inside a battery assembly to save space (col. 1, lines 31-63). Therefore, it would have been obvious to one of ordinary skill in the art

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at the time of invention to modify Lauper above, and to include Johnson's battery pack and antenna structure, such that the antenna can be structured inside the battery package, to save space.

***Response to Arguments***

4. Applicant's arguments with respect to claims 14-16, 18, 20 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's amendment for the allowable claims, they have been reconsidered based upon the no teachings for the antenna lies in a plane that extends parallel to an upper surface of a battery cell. However, the ground of rejection has been changed by utilizing patent to Lauper et al. (US 6,456,039 B1).

Lauper teaches a battery 2 (Fig. 1) of a mobile phone (3, abstract, col. 2, lines 40-45) comprising a battery cell (2), an antenna (20, Fig. 1) electrically connected with a mobile phone main body (Fig. 1, battery is connected to main body for making contact to 31 via 22), and implemented at a predetermined position adjacent to the battery cell (the antenna 20 is positioned at a predetermined position in battery as shown in Fig.1), a battery package holding the battery cell (battery cell in col. 4, lines 12-15), and the antenna is formed by a plurality of wires (antenna consists of a coil, col. 2, lines 48-50, and curled wires as shown in Fig. 1), that lie in a plane that extends parallel to an upper surface of the battery cell (the antenna 20 is in parallel to the surface of the battery cell 2 when the mobile phone 3 is laid down horizontally as shown in Fig. 1, such that the antenna 20 is in parallel with the surface of the battery 2).

In view of the above cited references, claims 14-16, 18, 20 are remaining in the rejection

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manner.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (703)-306-5615.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (703)-305-4385.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

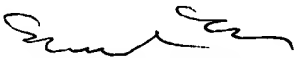
or faxed to: (703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Charles Chow *CC*.

April 5, 2004.

  
EDWARD F. URBAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600